

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R001030930009-6

LUX, A.

Drainage of mines. Bany lap 93 no.8:570 Ag '60.

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R001030930009-6"

LUX, Andras

Filter tissue made of synthetic material. Musz elet 16 no.7:10 Mr '61.

(Filters and filtration) (Synthetic materials) (EEAI 10:6)

LUX, Andras

Heat exchanger by plates. Musz elet 12 no.1:10 Ja '62.

(Heat exchangers)

LUX, Andras

Electromagnetic flow meter. Musz elet 17 no.2:12 Ja '62.

LUX, Andras

World level of the Hungarian technique of filtration. Musz elet  
19 no.14:7 2 Jl '64.

LUX, Arpad, dr.; VOROS, Istvan, dr.

Grunder's disease associated with hypersplenism. Orv. hetil. 106  
no. 29:1381-1383 18 J1'65.

I. Korvin Otto Korhaz, II. Belosztaly (foorvost Szasz, Gyorgy,  
dr.).

ACC NR: AP6035301 (4) SOURCE CODE: CZ/0078/66/000/009/0019/002C

AUTHOR: Novotny, Vladimir (Engineer; Tabor); Husa, Vaclav (Doctor; Engineer; Doctor of sciences; Pecky); Kriz, Josef (Prague); Bydzovsky, Jan (Engineer; Zasmukh); Ladnar, Josef (Prague); Luxa, Frantisek (Horni Pocernice)

ORG: none

TITLE: Ignition equipment for jet and turbojet engines. CZ Pat. No. PV 1920-65

SOURCE: Vynalezy, no. 9, 1966, 19-20

TOPIC TAGS: power plant component, fuel igniter, engine ignition system, jet engine, jet engine component, turboprop engine, turboprop engine component, spark plug, low voltage spark plug

ABSTRACT: Ignition equipment, especially for use with aircraft jet and turboprop engines, is introduced. It has a low-voltage spark plug and is fed by d-c supply. The secondary winding of the induction coil is connected through the rectifier to the capacitor. The sparking circuit is connected in parallel to the capacitor and connected in series with the low-voltage spark plug. One end of the primary winding of the induction coil is connected to the first pole of the d-c supply. The other end

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is connected to the outlet of the common collector for the composite two-step transistor and the outlet of the emitter of the output transistor which is connected to the other pole of the d-c supply and another resistor which is connected through the other pole of the d-c supply. [KS]

SUB CODE: 21/SUBM DATE: 24Mar65/

Card 2/2

(K)  
COSLOVAC

UZ, 060/60/000/000/0056/0059

AUTHOR: Dolezal, Vladimir (Doctor of medicine; Candidate of science); Slavka, Vladimir (Doctor of medicine); Luxa, Josef (Engineer); Rybak, Frantisek; Zemanova, Zdenka

ORG: Institute of Aviation Medicine, Prague (Ustav leteckeho zdravotnictvi); Research Institute of Physiatrics, Balneology, and Climatology, Bratislava (Vyzkumny ustav pro fyziatrii, balneologii a klimatologii)

TITLE: Adaptive reaction of the organism to mountain altitudes of 1500—2000 m

SOURCE: Vojenske zdravotnicke listy, no. 2, 1966, 56-59

TOPIC TAGS: alpine physiology, human physiology, high altitude physiology, high altitude conditioning, physical stress

ABSTRACT: A group of 8 mountain climbers was observed for 6 days under physical stress in the Tatra Mountains at an altitude of 1500—2000 m. The tests were especially designed to study kidney reaction. The following substances were measured at 12-hour intervals: vanillylmandelic acid (3-methoxy-4-hydroxymandelic acid), ketosteroids, mucoproteins, eosinophils, and dehydroepiandrosterone. On the first day, high secretion of ketosteroids and low secretion of vanillylmandelic acid were observed. A significant rise in vanillylmandelic acid occurred after the second day when the men had suffered a severe emotional disturbance (news of an accident). Significant changes were observed in the secretion of mucoproteins. The highest

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values were registered the first day; a decrease was observed in the following days, and a sharp drop after return from the mountains. Eosinophile values did not change considerably during the 6-day stay in the mountains. Dehydroepiandrosteron was the

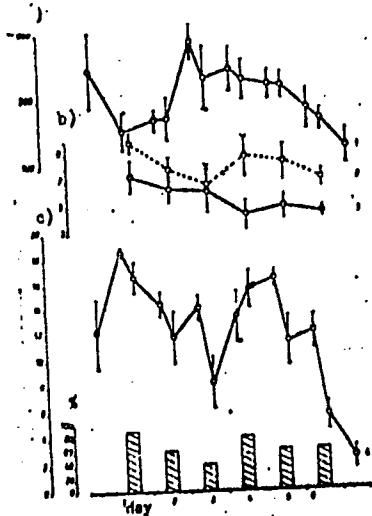


Fig. 1. Deposits of: 1) vanillyl-mandelic acid in microgram/hr in 12-hr portions of urine; 2) neutral 17-keto-steroids in mg/24 hr; 3) dehydroepiandrosterone in mg/24 hr; 4) units of mucoproteins in 12-hr portions of urine; 5) load in %. (The first and last values indicate the control figures taken before and after return from the mountains.)

a - Vanillylmandelic acid; b - 17-keto-steroids and dehydroepiandrosterone;  
c - mucoproteins.

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... substance tested which was reduced without regard to physical or emotional stress (see Fig. 1). The authors conclude that dehydroepiandrosterone can be used as an index of the adaptability of the organism to altitude. A connection was established between the degree of physical stress and deposits of 17-ketosteroids and mucoprotein. Vanillylmandelic acid was found to be a highly sensitive indicator of emotional stress. Further research is indicated to learn how the organism adjusts to altitude when not under physical stress, and whether the process of adjustment can be shortened by repeated exposure to altitude. Orig. art. has: 1 figure and 5 tables. [redacted]

LUXOVA, Maria; LUX, Andrej

Character of morphoses caused in the barley (*Hordeum distichum* L.) spike by 2-methyl-4-chlorophenoxyacetyl acid (MCPA).  
*Biologia plantarum* 6 no.4:258-264 '64.

1. Institute of Botany of the Slovak Academy of Sciences,  
Bratislava, Dubravská 26. Submitted on February 8, 1964.

POL/39-25-11-2/26

*18(5)*

AUTHOR: Lux, H.J., Engineer

TITLE: Metallurgic Working of Fine-Grained Ores in Low-Shaft Furnaces (Przeróbka hutnicza drobnoziarnistych rud w piecach niskoszybowych)

PERIODICAL: Hutnik, 1958, Vol 25, Nr 11-12, pp 432-440 (Poland)

ABSTRACT: As the reserves of high-grade ores and good coke diminish, it becomes necessary to process low-grade ores and inferior coke. Only low-shaft furnaces permit using low-strength fine-grained coke and low-grade ores because the height of their charge is small (2 m to 10 m) and because their operation is not hampered by large quantities of slag. The size of the ore lumps processed in low-shaft furnaces may vary from 10 mm to 40 mm. The pressure and the quantity of the blast greatly influence the smelting process. The world's first low-shaft furnace plant was built in East Germany by Professor Säuberlich in cooperation with Doctor Baake and the author. The following

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Metallurgic Working of Fine-Grained Ores in Low-Shaft Furnaces

factors had to be considered: 1) The profile and the design of the furnace, 2) The useful height and the cross section of the furnace, 3) The situation of the reduction zones, and 4) The quantity and the pressure of the blast as well as the number of the tuyeres. The following raw materials were available: ores from Badeleben (brown iron ores, poor in iron and rich in silica), ores from Büchenberg (also low-grade, but with less silica and more calcium oxide), brown-coal slag with approximately the same iron content, industrial coke from Zwickau, and gas coke. To speed up the reduction, it is expedient to crush the ore, to mix it with coke and flux and to briquet the mixture, thus ensuring not only the closest possible contact between carbon and ore, but also a uniform lump size and a pre-determined composition of the charge; this gives over 40% increase in output and a 10% coke economy. The first low-shaft furnace, used for pig iron production, gave favorable results. The silicon content could be reduced from 10 to 2%; the carbon content, increased ✓.

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Metallurgic Working of Fine-Grained Ores in Low-Shaft Furnaces

from 1.6 to about 3.4%. The construction of the West Iron Works in Calbe began in 1950. In March 1953, 10 furnaces were in operation. The most advanced of them have a useful capacity of about 80 m<sup>3</sup>, 16 water-cooled tuyeres and 2 hot blast stoves. The dust content of the raw gas is reduced by cleaning and washing to 0.03 - 0.02 g/Nm<sup>3</sup>. The use of a mixer and the maintenance of a constant temperature of about 800°C in connection with a steady air supply of 22,000 to 23,000 Nm<sup>3</sup>/h help to ensure a uniform chemical composition of the product. At present, the consumption of low-grade coke amounts to 2 tons per ton of pig iron. With 9 to 10 furnaces in operation, the West Iron Works produce about 22,500 tons of metal a month. The cost of the product was reduced from 100% in March 1953 to 43.9% in July 1956. The author proceeds to compare the operation of the low-shaft furnaces in Calba with that of the Demag Humboldt low-shaft furnace in West Germany and to describe the spongy-iron works at Maxhütte. It is intended to build

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Metallurgic Working of Fine-Grained Ores in Low-Shaft Furnaces

more powerful, round low-shaft furnaces.

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EXCEPPTA MEDICA Sec 16 Vol 7/11 Cancer November 59

4925. **Molar pregnancy and cervical cancer** Üszögterhesség és méhnyakráak.  
Lux J. and Görcs J. Kiskunfelegyhazi Varosi Korhaz Szüleszet-Nagygyógyászati  
Osztályának és a Pécsi Orvostud. Egyetem Szüleszet-Nagygyógyászati Klin. Mag.  
Onkol. 1958, 2/4 (180-184) Illus. 5  
Report on a case in which molar pregnancy was associated with a 1st stage cervical  
cancer. The urine contained 1,100,000 U. of HCG per litre. Abdominal hyster-  
ectomy was performed, followed by X-ray and radium treatment. After 4 yr. the  
patient was well.

ZSISKA, Mihaly, dr.; LUX, Janos, dr.

Study on hysterography. Magy.noorv.lap. 26 no.4:246-251 J1 '63.

l. Kiskunfelegyhazi Varosi Tanacs Korhaza Röntgen es Szüleszet-Nögyogyaszati Osztályanak közleménye.

LUX, Janos; ALBERT, Bela; FEKETE, Sandor

Glutamic-oxaloacetic transaminase (SGOT) in pregnancy. Magy.  
noorv.lap. 27 no.1:61-64 J '64.

1. Kiskunfelegyhazi Varosi Korhaz Szüleszet-nőgyogyaszati Osztalya  
es Laboratoriuma.

\*

Lux, K.

Present results of the Hungarian regional planning. p. 69.

EPITESUGYI SZEMLE. Budapest, Hungary. No. 3, 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no. 1, Jan. 1960.

Uncl.

LUX, L.

"Development in the building of houses in the Soviet Union." p. 167

MAGYAR EPITOIPAR. (Epitoipari Tudomanyos Egyesület) Budapest, Hungary,  
Vol. 8, No. 3, Mar. 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 6, June 1959  
Uncl

LUX, Laszlo, egyetemi tanar, Kossuth-díjas

The 20-year long-range plan of the construction industry. Magy  
ep ipar 10 no.10:473-477 '61.

1. "Magyar Epitoipar" főszervezete.

LUX, Laszlo

"Agriculture and the planning of towns and villages" by  
Jeno Major, Kalman Farago, Imre Perenyi. Reviewed by  
Laszlo Lux. Magy ep ipar 12 no.4:187-189 '63.

1. "Magyar Epitoipar" foszerkesztoje.

KADAS, Istvan, Dr.; SKODA, Ervin, Dr.; CZURKO, Geza, Dr.; LUX, Otto, Dr.

Cancer of the polycystic lung with portoperative spontaneous pneumothorax of the contralateral side. Orv. hetil. 100 no.47:  
1704-1706 Nov. 22, 59

1. A Pecsi Orvostudomnyi Egyetem Kortonctani Intezetenek (igazgato: Romhonyi Gyorgy dr. Egyet. tanar) es a Baranya megyei Tanacs VB. Korhaza (igazgato: Steinmetz Endre dr.) oltalanos nebeszeti osztalyanak (foorvos Skoda Ervin dr.) kozlemenye.  
(PNEUMOTHORAX, etiol.) (LUNGS, neopl.)

NEMETH-CSOKA, Mihaly, dr.; LUX, Otto, dr.

Clinical and pathological observations on 7 cases of endogenous  
ochronosis. Orv. hetil. 101 no.45:1587-1591 6 N '60.

l. Baranya Megyei Tanacs V.B.Korhaza, Kozponti Laboratorium es  
Altalanos Sebeszeti Osztaly.  
(OCHRONOSIS case reports)

LUX, Z.; SVOBODA, S.; NUDEC, K.

A survey of the birds of Moravia. p. 156. Brno. Moravske museum. CASOPIS.  
ACTA. Brno. Vol. 40, 1955.

SOURCE: East European Accessions List, Vol. 5, no. 9, September 1956

HUSA, Vaclav, inz. dr., kandidat technickych ved; KRIZ, Josef;  
LADMAR, Josef; LUXA, Frantisek

Contribution to the technology of the silicon Mesa power  
transistor. El tech obzor 52 no.10:538-540 O '63.

1. Statni vyzkumny ustav silnoproude elektrotechniky.

L 23676-66 EPF(n)-2/T/EWP(t)/EWA(h) IJP(c) JD/WN/JG/AT

ACC NR: AP6009346 (A) SOURCE CODE: CZ/0078/65/000/011/0013/0013

AUTHOR: Husa, Vacelev (Engineering, Doctor of Sciences, Pecky); Kriz, Josef; Ladnar, Josef (Prague); Luxa, Frantisek (Horni Pocernice) 52  
B

ORG: none

TITLE: Manufacture of p-type diffusion silicon element. Pat. No. PV 1792-63

SOURCE: Vynalezy, no. 11, 1965, 13 27

TOPIC TAGS: silicon element, collector emitter, gallium compound, hole conduction

ABSTRACT: An Author Certificate has been issued for a method of manufacture of a p-type diffusion silicon element by a two-phase diffusion process. The element base consists of two different conductivity layers where the layer of lower conductivity is adjacent to the region of the collector, while the layer of higher conductivity is close to the region of the emitter. The p-type conductivity region is created by a two-phase diffusion process, with constant temperature of the preheated silicon plate during each phase. The first diffusion phase takes place 1200-1350C for a period of 15 min to 5 hr. Gallium oxide heated to 750 -- 200C is used as the doping compound in an amount capable of evaporating in one quarter of the given time. After the completion of the first phase, the plate temperature is lowered to 900 -- 1250C at which temperature the second phase diffusion takes place in a period of 15 min to 2 hr, again with gallium oxide as the doping compound heated to 800 -- 1200C.

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L 23676-66

ACC NR: AP6009346

Hydrogen is used as the gas carrier in both phases.

[KP]

SUB CODE: 20/ SUBM DATE: 06Apr65/

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L 30942-66 EWT(1) SCTB DD  
ACC NR: AP6023157

SOURCE CODE: CZ/0060/65/000/004/0164/0166

AUTHOR: Dolezal, Vladimir-Dolezhal, V. (Doctor of medicine; Candidate of sciences);  
Lucas, Josef-Luksa, I. (Major; Engineer)

ORG: Institute of Aviation Medicine, Prague (Ustav leteckeho zdravotnictvi)

TITLE: Excretion of 3-methoxy-4-hydroxy-mandelic acid in pilots

SOURCE: Vojenske zdravotnické listy, no. 4, 1965, 164-166

TOPIC TAGS: excretion, hydroxy carboxylic acid, pilot training, urology, protein

ABSTRACT: Pilots undergoing training for flying supersonic aircraft were investigated. 3-Methoxy-4-Hydroxy-Mandelic acid was determined in the urine of pilots. The excretion increased by 80% compared to normal values. In night samples of urine, the acid content was double the normal value; this was no doubt due to the emotions before the flight. At the same time the excretion of mucoproteins in the urine also increased. Technical participants in this investigation were Bozena Svacinkova, Zdenka Zemanova, and Frantisek Rybak. Orig. art. has: 2 figures and 2 tables. [JPRS]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 003 / OTH REF: 010

Card 1/1 CC

UDC: 613.693.007:616-034/547.588.11  
0915 2368

LUXOVA, M.

"Biocoenosis of diseases and pests on dying apricots." (p.89). BIOLOGICKY SBORNIK.  
(Slovenska akademia vied a umeni) Bratislava. Vol. 7, No. 1/2, 1952.

SO: East European Accessions List, Vol 3, No 8, Aug 1954.

LUXOVA, M.

"Poplar moth (Phyllochnistis sufusella Z.), a pest in poplar nurseries." (p.127).  
BIOLOGICKY SBORNIK. (Slovenska akademia vied a umeni) Bratislava. Vol. 7, No. 1/2,  
1952.

SO: East European Accessions List, Vol 3, No 8, Aug 1954.

LUXOVA, M.

"Effect of soil sterilization by steam on the growth of salads; a preliminary report." (p.193). BIOLOGICKY SBORNIK. (Slovenska akademia vied a umeni) Bratislava. Vol. 7, No. 1/2, 1952.

SO: East European Accessions List, Vol 3, No 8, Aug 1954.

LUXOVA, M.

Conference on the problems of apricot cultivation. p. 60.  
BIOLOGIA. (Slovenska akademia vied) Vol. 11, no. 1, 1956.

SOURCE: East European Accessions List, (EEAL) of Congress Vol. 5,  
No. 8, August 1956.

LUXOVA, M.

LUXOVA, M. A beautiful anniversary of Academician B. Nemec. p.177.  
Vol. 11, no. 3, 1956, BIOLOGIA, BRATISLAVA, CZECHOSLOVAKIA.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, no. 10,  
Oct. 1956.

LUXOVA, M.

Effect of sowing on the properties of flax (Linum usitatissimum L.)

p. 662 (BIOLOGIA) Vol. 11, no. 11, 1956,  
Bratislava, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 3,  
March 1958

LUXOVA, M

"Changes in the form of the fruit of the tomato during its development."

BIOLOGIA, Bratislava, Czechoslovakia, Vol. 13, no. 6, 1958

Monthly list of East Europe Accessions (EEAI), LC, Vol. 8, No. 6, Sept59  
Unclassified

Luxova, M.

Relationship between the histogenesis in the fruits of *Lycopersicum esculentum* Mill. and their cracking properties. p. 531.

SIOLOGIA, Bratislava, Czechoslovakia, Vol. 14, no. 7, 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 10, Oct, 1959.  
Uncle.

LUXOVA, Maria, dr., C.Sc.

Relation between the development of fruit and pollination in *Lyco-*  
*persicon Esculentum* Mill. Biologia 16 no.6:428-435 '61.

1. Biologicky ustav Slovenskej akademie vied, Oddelenie fyziologie  
rastlin, Bratislava, Dubravská cesta 12.

(Tomatoes)

LUXOVA, Marie

Effect of leaf age on the translocation movement of 4-chloro-  
2-methylphenoxyacetic acid (MCPA) in *Hordeum distichum L.*  
*Biologia plantarum* 6 no. 2:158-159 '64.

1. Department of Plant Physiology, Institute of Botany,  
Slovak Academy of Sciences, Bratislava 9, Dubravská 26.

LUXOVA, Maria; LUX, Andrej

Character of morphoses caused in the barley (*Hordeum distichum*  
L.) spike by 2-methyl-4-chlorophenoxyacetic acid (MCPA).  
*Biologia plantarum* 6 no.4:258-264 '64.

1. Institute of Botany of the Slovak Academy of Sciences,  
Bratislava, Dubravská 26. Submitted on February 8, 1964.

L 33451-66

ACC NR: AP6023513

SOURCE CODE: CZ/0049/65/000/011/0890/0893

AUTHOR: Luxova, Maria—Lyuksova, M. (Doctor; Candidate of sciences; Bratislava); Erdelska, O. (Graduate biologist; Candidate of sciences; Bratislava)

ORG: Botanical Institute, SAV, Bratislava (Botanicky ustav SAV) 14TITLE: Plasmatic inclusions in fusing polar nuclei of barley B

SOURCE: Biologia, no. 11, 1965, 890-893

TOPIC TAGS: cytoplasm, plant physiology, plant development

ABSTRACT: When two polar nuclei approach each other a thin cytoplasmic layer separates them. Between the nuclei there are plasmatic inclusions of isolated cytoplasmatic regions. In barley this occurs in approx. 3% of the observed cases. When the isolated cytoplasm decays, the inclusions change into vacuoles enclosed within nuclear membranes. Only very rarely are these free in barley after the fusion. The increase of the vacuole volume may be so strong in barley that the nucleoles lying near the vacuole are deformed; eventually even the vacuole is deformed. The nuclear membranes of the enlarged vacuoles have unequal thicknesses.

Orig. art. has: 1 figure. [Orig. art. in Eng.] [JPRS]

SUB CODE: 06 / SUBM DATE: 28Jun65 / ORIG REF: 002 / SOV REF: 002  
OTH REF: 006

Card 1/1

plf

0915

1473

LUYANAS, V. [Lujanas, V.]

In the Sector of Atmospheric Physics. Trudy AN Lit. SSR. Ser.  
B. no. 4:228-229 '65 (MIRA 19:2)

S/236/63/000/001/003/015  
D403/D307

AUTHOR: Luyanas, V. I.

TITLE: On the problem of the formation of tritium in the atmosphere

SOURCE: Akademiya nauk Litovskoy SSR. Trudy. Seriya B. no. 1,  
1963, 21-27

TEXT: The present work was motivated by (a) the desirability of using  $H_3^+$  as a marker in the study of meteorology, and (b) the lack of clarity which still persists regarding the mechanism and amount of its production. Formation of  $H_3^+$  by (1) evaporation neutrons, (2) by fast neutrons, and (3) in cosmic showers is considered. For neutron energy spectrum

$$N(E)dE = kEe^{-E} dE \quad (2)$$

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On the problem of the ...

S/236/63/000/001/003/015  
D403/D307

(where  $N$  - the number of neutrons,  $E$  = energy, and  $k$  = constant)  
in case (1), and for energy spectrum

$$N(E)dE = zE^{-2} e^{-160E^{-2}} dE \quad (11)$$

(where  $z$  is a normalizing multiplier) in case(2), the combined maximum possible tritium production is on the average 0.12 atoms/cm<sup>2</sup>/sec. Tabulated results are given for the production of H<sup>3</sup>, in northern geomagnetic latitude of 44°, for various energies of both kinds of neutrons. In case (3), the production of H<sup>3</sup> is estimated as 0.24 atoms/cm<sup>2</sup>/sec. The overall production is thus of the order of 0.36 atoms/cm<sup>2</sup>/sec. This may be supplemented by H<sup>3</sup> formation due to protons from the inner shell of the planet, and by direct penetration of solar tritium into the atmosphere. There are 2 tables.

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On the problem of the ...

S/236/63/000/001/003/015  
D403/D307

ASSOCIATION: Institut geologii i geografii Akademii nauk Litovskoy SSR (Institute of Geology and Geography of the AS Lithuanian SSR)

SUBMITTED: June 24, 1962

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STYRO, B.I.; GARBALYauskas, Ch.A.; LUYANAS, V.I.; MATULYAVICHUS, V.P.;  
NEDVETSKAYTE, T.N.; TOMKUS, I.S.

Secondary dust component of radioactive contaminations in the  
bottom atmospheric layer. Atom. energ. 15 no.4:339-341 O '63.  
(MIRA 16:10)

ACCESSION NR: AP4031104

S/0236/64/000/001/0011/0020

AUTHOR: Luyanas, V. I.

TITLE: The use of natural H sup 3 and Be sup 7 for investigation  
vertical motion in the atmosphere

SOURCE: AN LitSSR. Trudy\*, Seriya B, no. 1, 1964, 11-20

TOPIC TAGS: radioisotope, meteorological investigation, air dynamics,  
Be<sup>7</sup>, H<sup>3</sup>, P<sup>32</sup>, isotope ratio, absolute isotope concentration, strato-  
spheric radioisotope content, tropospheric radioisotope content cos-  
mic radiation, paleomagnetic study, Be<sup>10</sup>, paleoclimatic study, air  
mass age, air mass origin, cosmic radiation intensity

ABSTRACT: The use of radioisotopes produced by the action of cosmic  
rays was investigated in studies of the dynamics of air masses,  
especially for determining the age and origin of an air mass.  
Radioisotopes produced by the action of cosmic rays have a great  
vertical concentration gradient: at the geomagnetic latitude of 50  
degrees the equilibrium concentration of tritium is 112000 atoms/gram  
of air at 16 km., 1300 atom/gm. at 8 km. and 7.7 atom/gm at sea level.

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ACCESSION NR: AP4031104

For Be<sup>7</sup> the concentrations at these altitudes are 2900, 218 and 2.2 atoms/gm. Dropping air masses from higher layers to the earth's surface cause an increase in the concentration of the individual isotopes in the ground surface layers of the atmosphere, but because of the mixing of the air masses the absolute isotope concentration cannot serve as the criterion for establishing the location of the origin of the air mass. However the ratio of the radioisotopes can be used as the criterion. Data on the distribution of the concentration of natural radioisotopes H<sup>3</sup>, Be<sup>7</sup> and P<sup>32</sup> according to the altitude at latitude 50 degrees is tabulated. The ratio of H<sup>3</sup> and Be<sup>7</sup> in the stratosphere at 16 km. is about 39, in the upper troposphere at 8 km., about 6. On dropping air from the upper layers of the atmosphere to the earth's surface, the ratio of the concentration of the H<sup>3</sup> and Be<sup>7</sup> isotopes starts to increase. The age of the air mass can be evaluated from this increase. It is indicated that it is possible to use long life radioisotopes formed by the action of cosmic radiation (e.g., Be<sup>10</sup>) for paleomagnetic and paleoclimatic investigations and for studying the intensity of cosmic radiation in the past.

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ACCESSION NR: AP4031104

"In conclusion the author expresses sincere appreciation to Dr. of Phys. Math. Sciences B. I. Sty\*r for the series of valuable observations." Orig. art. has: 5 tables, 3 figures and 6 equations.

ASSOCIATION: Institut geologii i geographii, Akademii nauk Litovskoy SSR  
(Institute of Geology and Geography, Academy of Sciences Lithuanian SSR)

SUBMITTED: 27May63

ENCL: 00

SUB CODE: AA,NP

NR REF SOV: 004

OTHER: 002

Card 3/3

L 3229-66 EMT(1)/EMT(m)/FCC DIAAP GS/GW  
ACCESSION NR: AT5023921

UR/0000/65/000/000/0018/0027

AUTHOR: Luyanas, V. Yu.

TITLE: Estimate of the rate of formation of certain radioactive isotopes in the atmosphere

SOURCE: Nauchnaya konferentsiya po yadernoy meteorologii. Obninsk, 1964. Radioaktivnyye izotopy v atmosfere i ikh ispol'zovaniye v meteorologii (Radioactive isotopes in the atmosphere and their use in meteorology); doklady konferentsii. Moscow, Atomizdat, 1965, 18-27

TOPIC TAGS: nuclear meteorology, radioactive tracer, radioactive isotope, tritium, cosmic ray

ABSTRACT: Calculations used by various authorities to derive the probable rates of generation and concentrations of yet undiscovered, but undoubtedly existing, radioactive isotopes produced by cosmic rays are presented and evaluated. An attempt is made to define more accurately the mechanisms by which tritium is produced. Orig. art. has: 6 formulas, 1 figure, and 3 tables. [ER]

ASSOCIATION: none

Card 1/2

L 3229-66

ACCESSION NR: AT5023921

SUBMITTED: 28Apr65

NO REF SOV: 004

ENCL: 00

OTHER: 011

SUB CODE: ES, NP

ATD PRESS: 4101

Card 2/2

LIPPMAA, E.; LUYGA, P. [Luiga, P.]

Nonuniformity of gas flow in preparative gas chromatography.  
Izv. AN Est. SSR. Ser.fiz.-mat.i tekhnauk 14 no,2:246-254  
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Loading factor and condensation in preparative gas chromatography. Ibid.:255-257  
(MIRA 19:1)

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LUYK, A.A.

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(Toluk Valley--Geology, Stratigraphic)

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Age and characteristics of the development of the Permian effusive  
series in northern Kirghizia. Trudy Inst. geol. AH Kir. SSR no.9:59-68  
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LUYK, A. A.

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1. Upravleniye geologii i okhrany nedr pri Sovete Ministrov  
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[Construction industry: technology and mechanization of the construction industry; the economics and organization of construction] Stroitel'noe proizvodstvo: tehnologiya i me-khanizatsiya stroitel'nogo proizvodstva; ekonomika i orga-nizatsiya stroitel'stva. Kiev, Budivel'nyk, 1965. 180 p.  
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LEVIT, I.I., Engineer; KARVEKOV, V.P.; LUCK, A.S.

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(Tatarslav District--Textile industry)

LUVK, I.

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stva i arkhitektury USSR.  
(Building machinery--Maintenance and repair)

LUYK, Igor' Al'fredovich; SOSNOVSKAYA, G.I., red.; ZELENKOVA, Ye.Ye.,  
tekhn. red.

[Basic principles of organizing the servicing and repair of  
construction equipment] Osnovnye printsipy organizatsii obslu-  
zhivaniia i remonta stroitel'nykh mashin. Kiev, Gosstroizdat,  
USSR, 1962. 127 p. (MIRA 15:10)  
(Construction equipment—Maintenance and repair)

LUYK, I.A., inzh.

The mobility of self-propelled building machinery. Makh. stroi.  
18 no.12:18-21 D '61. (MIRA 16:7)

(Building machinery)

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LUXK, I.A., inzh.; LINETSKIY, G.I., inzh.; GORDEIEV, P.A.,  
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[Album on the maintenance of the E-652 excavator] Al'bom  
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(Excavating machinery—Maintenance and repair)

BOLIYEV, Ch.B., inzh.; KOIMAKOV, V.M., inzh.; LINETSKIY, G.I.,  
inzh.; LUYK, I.A., inzh.; MIRKIN, F.S., inzh.;  
POLYANSKIY, S.K., inzh.; YUDINA, L.A., red.

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KOIMAKOV, V.M., inzh.; BALIYEV, Ch.B., inzh.; LIMETSKIY, G.I.,  
inzh.; POLYANSKIY, S.K., inzh.; LUYK, I.A., inzh.;  
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[Album on the technical maintenance of the LAZ-690 motor  
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LAZ-690. Moskva, Stroizdat, 1964. 110 p. (MINA 17:6)

1. Moscow. Nauchno-issledovatel'skiy institut organizatsii  
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KOLMAKOV, V.M., inzh.; BALIYEV, Ch.B., inzh.; LINETSKIY, G.I.,  
inzh.; POLYANSKIY, S.K., inzh.; LUYK, I.A., inzh.;  
ZHARDINOVSKIY, G.M., inzh.; LYTKINA, L.S., red.

[Album on the technical maintenance of the K-51 automobile  
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Moskva, Stroizdat, 1964. 119 p. (MIRA 17:5)

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KOIMAKOV, V.M., inzh.; BALIYEV, Ch.B., inzh.; LINETSKIY, G.I.,  
inzh.; POLYANSKIY, S.K., inzh.; LUYK, I.A., inzh.;  
ZHARDINOVSKIY, G.M., inzh.; PEREVALYUK, M.V., red.;  
BOROVNEV, N.K., tekhn. red.

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organizatsii i mekhanizatsii stroitel'nogo proizvodstva.

VAYNKOF, Ya.F., kand. tekhn. nauk; LUYK, I.A., ; BOIJIYEV, I.B.,  
inzh.; KOIMAKOV, V.M., inzh.; LINETSKIY, G.I., inzh.;  
MIRKIN, F.S., inzh.; POLYANSKIY, S.K., inzh.

[Album for the technical maintenance of the ZIF-55  
compressor plant] Al'bom tekhnicheskogo obsluzhiva-  
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proizvodstva.

VAYNKO<sup>F</sup>, Ya.F., kand. tekhn. nauk; LUYK, I.A.; BOLIYEV, I.B.;  
inzh.; POLYANSKIY, S.K., inzh.; KOLMAKOV, V.M., inzh.;  
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izvodstva.

VAYNKO<sup>F</sup>, V.Ya., kand. tekhn. nauk; LUYK, I.A., kand. tekhn. nauk;  
BOLIYEV, Ch.B., inzh.; KOLMAKOV, V.M., inzh.; LINETSKIY,  
G.I., inzh.; MIRKIN, S.F., inzh.; POLYANSKIY, S.K., inzh.;  
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[Album for the maintenance of the D-144 motor grader] Al'bom  
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VAYNKO<sup>F</sup>, Ya.F., kand. tekhn. nauk; LUYK, I.A., kand. tekhn. nauk;  
BOLIYEV, Ch.B., inzh.; ZHARDINOVSKIY, G.M., inzh.;  
KOIMAKOV, V.M., inzh.; LINETSKIY, G.I., inzh.; MIRKIN, F.S.,  
inzh.; POLYANSKIY, S.K., inzh.; RYSHKOVSKIY, V.N., inzh.

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1. Nauchno-issledovatel'skiy institut stroitel'nogo proizvod-  
stva.

VAYNKO<sup>F</sup>, Ya.F., kand. tekhn. nauk; LUYK, I.A.; BOLIYEV, Ch.B.,  
inzh.; KOLOMAKOV, V.M., inzh.; LINETSKIY, G.I., inzh.;  
MIRKIN, F.S., inzh.; POLYANSKIY, S.K., inzh.;  
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[Album for the technical maintenance of the K-124 truck  
crane] Al'bom tekhnicheskogo obsluzhivaniia pnevmokles-  
nogo krana K-124. Moskva, Stroizdat, 1965. 126 p.  
(MIRA 18:4)  
1. Nauchno-issledovatel'skiy institut stroitel'nogo proizvod-  
stva.

VAYNKO<sup>F</sup>, Ya.F., kand. tekhn. nauk; LUYK, I.A.; BOLIYEV, I.B.,  
inzh.; KOLMAKOV, V.M., inzh.; LINETSKIY, G.I., inzh.;  
MIRKIN, F.S., inzh.; POLYANSKIY, S.K., inzh.

[Album for the technical maintenance of the ZIF-55 compressor station] Al'bom tekhnicheskogo obsluzhivaniia kompressornoi stantsii ZIF-55. Moskva, Stroizdat, 1964. 120 p.  
(MIRA 18:6)

1. Kiev. Nauchno-issledovatel'skiy institut stroitel'nogo  
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LINETSKIY, G.I.; VAYNKO<sup>F</sup>, Ya.F., kand. tekhn. nauk; MIRKIN, F.S.;  
~~LIYK, I.A.~~, kand. tekhn. nauk; BOLIYEV, Ch.B.; KOLMAKOV,  
V.M.; POLYANSKIY, S.K.; RYSHKOVSKIY, V.N.; RYAZANTSEVA,  
L.I., red.

[Album on the technical maintenance of the E-12<sup>50</sup> excavator]  
Al'bom tekhnicheskogo obsluzhivaniia ekskavatora E-1252. Mo-  
skva, Stroiizdat, 1965. 112 p. (MIRA 18:8)

I. Kiev. Nauchno-issledovatel'skiy institut organizatsii i  
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LICHTENBERG, J.; LUZA, E.; MORAVEC, V.

Preliminary report on the experiences with enteral administration  
of oxygen by Poupa's method. Cas. lek. cesk. 98 no.35:1089-1091  
28 Aug 59

1. I. chirurg. klinika KU v Praze, prednosta prof. dr. J. Pavrovsky.  
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ROSENFIELD, R.; ROSENFELDOVA, A.; LUZA, J.

The increased liberation of osteotropic radio-isotopes following administration of local anaesthetics. Physiol. bohemoslov. 11 no.3: 225-230 '62.

1. Institute of Physiology and Institute of Medical Physics, Medical Faculty, Palacky University, Olomouc.

(ANESTHETICS, LOCAL pharmacology)  
(BONE AND BONES pharmacology)  
(CALCIUM metabolism)

KUCERA, lec; EUZA, Jiri

The effect of histamine on the regeneration of the leukocytes  
after leukopheresis. Sborn. ved. prac. lek. fak. Karlov. Univ.  
7 no.4:523-529 '64.

1. Fyziologicky ustav Lekarske fakulty Palackeho University,  
Olomouc (predresta: doc. MUDr. A. Kucera).

LUZA, V.

"Problem of the division of nuclei during the regeneration process of skeletal muscles in rabbits. In Russian."

p. 55 (Folia Biologica, Vol. 3, no. 1, 1957, Praha, Czechoslovakia.)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 6 June 1958.

CZECHOSLOVAKIA

KUCERA, A., STEIGLOVA, I., LUZA, J.: Physiological Institute,  
Medical Faculty, Palacky University (Fysiologicky Ustav Lek. Fak.  
PU), Olomouc.

"Analysis of Inspiration Reflexes Caused by Mechanical Stimulation  
in Pentothallic Apneic Pause."

Prague, Ceskoslovenska Fisiologie, Vol 15, No 2, Feb 66, p 71

Abstract: Thiopentalum soluble is a hypnotic with a strong initial effect and is used in surgery and obstetrics when muscle relaxation is not required. An initial dose of 1.2 cc of a 5% solution per kg of body weight causes apnoea. During this state every mechanical excitation of the breast causes a breath intake and expiration. Intravenous administration of thiopenthal to a rabbit causes an expiration apneic pause. Imposed breathing persists even when subcutaneous application of procaine is made. The resection of nervus vagus does not stop the occurrence of imposed breathing in an apneic pause. The origin of this reflex action is discussed. 2 Western references. Submitted at the "16 Days of Physiology" at Kosice, 29 Sep 65.

1/1

CZECHOSLOVAKIA

SVACINKA, J.; LUXA, J.; SVACINKOVA, B.; Institute of Aeronautical Medicine (Ustav Leteckeho Zdravotnictvi), Prague.

"Physiological Effects of Extreme Values of Intrapulmonary Oxygen Overpressure. II. Dynamics of Excretion of 3-Methoxy-4 Hydroxymandelic Acid and 3-Methoxy-4 Hydroxyphenylacetic Acid in Urine."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 2, Feb. 65, p 73

Abstract: Positive pressures of 0.04 to 0.2 kg/cm<sup>2</sup> were investigated. Increase of pressure by 33 mm Hg increases the amount of excreted acids only very little, while a pressure of 74 mm Hg increases this amount significantly. Experiments were conducted using flying personnel and mountain climbers. Changes of pressure seem to influence hormonal components of the responses of the organism. 3 Czech references. Submitted at the "16 Days of Physiogy" at Kosice, 27 Sep 65.

1/1

JEZO, Ivan, dr., inz., C.Sc.; LUZAK, Ivan, inz.

Aminolysis of saccharose. Pt.2. Chem zvesti 17 no.4:255-264 '63.

1. Ceskoslovenska akademie ved, Chemicky ustav Slovenskej akademie vied, Oddelenie chemie sacharidov, Bratislava, Mlynske nivy 37.

JEZO, Ivan, dr. inz., CSc.; LUZAK, Ivan, inz.

Aminolysis of saccharose. Pt. 3. Chem zvesti 17 no.12:  
865-883 '63.

1. Ceskoslovenska akademie ved, Chemicky ustav Slovenskej  
akademie vied, Bratislava, Mlynske nivy 37.

L 1606-66

ACCESSION NR: AP5024490

35 CZ/0043/64/000/011/0837/0851

17B

AUTHOR: Jezo, I. (Yezho, I.) (Doctor, Engineer, Candidate of sciences) (Bratislava);  
Luzak, I. (Luzhak, I.) (Engineer) (Bratislava)TITLE: Aminolysis of sucrose (V). Reaction of sucrose with aqueous solution of  
ethanolamine

SOURCE: Chemicke zvesti, no. 11, 1964, 837-851

TOPIC TAGS: carbohydrate, aqueous solution, ethanol, amine, reaction mechanism

ABSTRACT: Aminolysis of sucrose by water solutions of ethanolamine was conducted at elevated temperatures. In the reaction mixture the following were identified and isolated: ethylene-diamine, 1-ethyl piperazine, 1-(2-hydroxyethyl)-2-methyl-1,4,5,6-tetrahydropyrazine, 2-methyl-4-(2-hydroxyethyl)-1,4,5,6-tetrahydropyrazine, 1-(2-hydroxyethyl)-2-methyl-2-imidazoline, 1,4-bis(2-hydroxyethyl)-2-methyl-1,4-dihydropyrazine, and a substance with an empirical formula  $C_{11}H_{21}N_3O_2$ . The formation of these

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ACCESSION NR: AP5024490

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substances is explained by a suggested reaction mechanism that applies at elevated temperatures. "We thank A. Puffler and O. Rau <sup>WSS</sup> for the elementary analyses; R. Just for the measurement of infrared spectra; A. Sedlak for determination of some physico-chemical constants of the examined materials. Z. Matrka participated in the experimental work." Orig. art. has: 5 formulas, 4 graphs, 3 tables.

ASSOCIATION: Chemicky ustav Slovenskej akademie vied, Oddelehlie chemie monosacharidov, Bratislava (Department of Chemistry of Monosaccharides, Institute of Chemistry, Slovak Academy of Sciences) <sup>15</sup>

SUBMITTED: 15Jun64

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NR REF Sov: 000

OTHER: 013

JPRS

Card 2/2

L 31396-66

ACC NR: AP6021114

SOURCE CODE: CZ/0043/65/000/012/0000/0907

AUTHOR: Jozo, Ivan--Yezho, I. (Docent; Doctor; Engineer; Candidate of sciences;  
Bratislava); Luzak, Ivan--Luzhak, I. (Engineer; Bratislava)ORG: Department for the Chemistry of Mono and Oligo-saccharides, Chemical Institute,  
SAV, Bratislava (Oddelenie chemie monosaccharidov a oligosaccharidov Chemickeho ustavu  
Slovenskoj akademie vied)TITLE: Aminolysis of sucrose (VI). Reaction of sucrose with water solutions of  
beta-aminopropionitrile at elevated temperatures

SOURCE: Chemicke zvesti, no. 12, 1965, 900-907

TOPIC TAGS: chemical reaction, amino, organic nitrile compound, carbohydrate

ABSTRACT: During the reaction of sucrose with beta-aminopropio-  
nitrile in water solution at elevated temperatures a mixture of  
heterocyclic compounds is formed; the authors isolated and  
identified the following: 2-methylpyrazine, 2,5-dimethylpyrazine,  
2-methyl-1,4(?) -dihydropyrazine, 4(5)-methylimidazole, and 2-  
methyl-4-(beta-cyanoethyl)-1,4-dihydropyrazine. At the same time  
the beta-aminopropionitrile is transformed to bis(2-cyanoethyl)  
amine. The reaction mechanisms explaining the formation of the  
compounds mentioned is discussed. The authors thank A. Pufflerov and O.

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L 31396-66

ACC NR: AP6021114

Jurikov for the elementary analysis, A. Sedlak for determining several physico-chemical constants of the examined substances. Z. Martka and P. Gregor participated in the experimental work. Orig. art. has: 2 tables. [JPRS]

SUB CODE: 07 / SUHM DATE: 22Feb65 / ORIG REF: 002 / OTH REF: 001  
SOV REF: 001

Card 2/2 CC

L 31333-66

ACC NR: AP6021115

SOURCE CODE: CZ/0043/65/000/012/0908/0917

AUTHOR: Jozo, Ivan--Yezho, I. (Docent; Doctor; Engineer; Candidate of sciences; Bratislava); Luzak, Ivan--Luzhak, I. (Engineer; Bratislava) <sup>28</sup> <sup>3</sup>

ORG: Department for the Chemistry of Mono and Oligo-saccharides, Chemical Institute, SAV, Bratislava (Oddelenie chemie monosacharidov a oligosacharidov Chemickeho ustavu Slovenskoj akademie vied)

TITLE: Aminoanalysis of sucrose (VII). Reaction of sucrose with water solutions of dimethylamine at elevated temperatures

SOURCE: Chemické zvesti, no. 12, 1965, 908-917

TOPIC TAGS: carbohydrate, chemical reaction, reaction temperature, dimethylamino, dicarboxylic acid, organic amide, propane, ethane, ethanol

ABSTRACT: The following substances were isolated by the authors from the reaction mixture of sucrose and dimethylamine at elevated temperatures: trimethylamino, dimethylethylamine; 2-dimethylamino-ethanol, 1,2-bis(dimethylamino) propano, 1,1,2-tris(dimethylamino) ethane; N-dimethylacetamide, N-dimethylglycol amide, N,N'-tetramethyl-glycinamide, and the bismethylamide of the cis(?) tetrahydrofuran-2,5-dicarboxylic acid. The mechanism of the reaction is discussed. The authors thank A. Pufflerov and O. Jurikov for the elementary analysis, R. Justhov for remeasuring the infrared spectrum and A. Sedlak for determining several physico-chemical constants of the examined substances. P. Gregor participated in the experimental part. Orig. art. has:

2 tables. [JPRS] SUB CODE: 07 / SUEM DATE: 22Feb65 / ORIG REF: 005 / OTH REF: 023

SOV REF: 002  
Card 1/1 <sup>80</sup>

LUZAN, A. F.

27884. Luzan, A. F. Analiz raboty uzbekistskogo respublikanskogo gospitalya dlya lecheniya invalidov otechestvennoy voyny za 1946 i 1947 gg. Trudy pervoy Nauch. Mezhresp. Konf-tzii po lecheniyu invalidov Otechestv. voyny v Sred. Azii, Tashkent, 1949, s. 25-32

SO: Letopis' Zhurnal'nykh Statey, Vol. 37, 1949

Luzan, D.E.

The deformation of metals on measuring the potential  
N. P. Petrol'ev, N. P. Gausin, and A. P. Luzan. Trudy  
Leningrad. Tekhnol. Inst. im. Lensovet 13, 20 (1956).  
Preliminary expts indicated that the deformation of Al  
Cu, and Ni electrodes in a 1% Na<sub>2</sub>SO<sub>4</sub>, with varying place on  
varying the potential, were connected with out and effects  
explained by electroacoustic phenomena. b M. E. B.

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Hatch

LUZAN, I.E.

v-8

USSR/Human and Animal Physiology - Reproduction.

Abs Jour : Ref Zhur - Biol., No 2, 1958, 8936

Author : I.E. Luzan

Inst :  
Title : The Influence of Bromine on the Reproductive System of  
Female Rats.

Orig Pub : Probl. endokrinol. i gormonoterapii, 1955, No 6, 67-71

Abstract : Prior to injection of NaBr the character and rhythm of the sexual cycle of rats was determined by vaginal smears. NaBr was injected subcutaneously daily in doses of 30 mg/100 g. Prolonged injection of NaBr (up to 2-2½ months) considerably lengthened the period of heat and shortened the resting period. Histological study of the sexual apparatus of ovariectomized rats, in which the sexual cycle was preserved through the prolonged effect of NaBr, showed that degenerative atrophic processes, typical for castrated animals, developed in the uterus and tubes, but the

Card 1/2

LUZAN, L.Ye. (Khar'kov)

Effect of bromine on the genital system in female rats. Probl.  
endok. i gorm. 1 no.6:67-71 N-D '55. (MIRA 12:8)

1. Iz kafedry histologii (zav. - prof.B.V.Aleshin) Khar'kovskogo  
meditsinskogo instituta (dir. dotsent I.F.Kononenko).  
(ESTRUS CYCLE, effect of drugs on,  
sodium bromide, in rats)  
(BROMIDES, effects,  
on estrus cycle in rats)

85814

S/081/60/000/019/002/012  
A006/A001Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 19, p. 338, # 78027  
187400

AUTHORS: Fedot'yev, N. P., Vyacheslavov, P. M., Luzan, M. D.

TITLE: Electrochemical Deposition of High-Hardness Silver Coatings 18

PERIODICAL: Tr. Leningr. tekhnol. in-ta im. Lensoveta, 1959, No. 53, pp. 54-63

TEXT: The effect of admixtures, such as  $K_2Ni(CN)_4$  and  $K_3Co(CN)_6$ , and of current pulsation on the hardness and wear resistance of Ag coatings was studied on an electrolyte of the following composition (in g/l): Agmet 26, KCN free 20,  $K_2CO_3$  30 at  $T = 20 \pm 0.5^\circ C$ . At  $D_{cath} = 0.2 - 0.3 \text{ amp/dm}^2$  an increase in Ni concentration from 0.5 to 14 g/l causes higher microhardness of the deposit, raising from 90 to 120  $\text{kg/mm}^2$ ; this is explained by the formation of a solid Ag/Ni solution. At  $D_{cath} = 0.5 - 1.5 \text{ amp/dm}^2$ , microhardness begins to decrease which is explained by the joint discharge of hydrogen ions; as a result a loose deposit with a reduced hardness is formed. A decrease in the Ag concentration in the electrolyte at  $D_{cath} = 1 \text{ amp/dm}^2$  entails a reduction in hardness of the deposit. This is connected with the drop of current efficiency and the formation

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of a loose deposit. At a thickness of the deposit of  $< 50\mu$ , hardness decreases due to the coarsening of the crystal size. A higher KCN content raised from 5 to 100 g/l or  $K_2CO_3$  from 10 to 100 g/l, causes a slight decrease in the hardness of Ag coatings. When 0.2 - 0.8 g/l Co is added to the electrolyte, the same regularities are observed as by the addition of Ni. However, Co does not enter the deposit and its effect is explained by adsorption on the electrode surface of stable  $Co(CN)_6^{3-}$  complexes, which causes a reduced size of the deposit grains. Investigations with pulsating current showed that the latter raises microhardness by 15 - 20%. It is established that Ni admixtures shift the polarization curve toward the side of more negative values by 0.01 v and admixtures of Co by 0.4 v. All the curves have inflection points at  $D_{cath} = 1.1 - 1.2 \text{ amp/dm}^2$ , which corresponds to the onset of hydrogen separation. The following composition of silver-plating electrolyte is recommended (in g/l): Ag 26 - 30; Co 0.8 - 1 (or Ni 0.4 - 0.5), KCN<sub>free</sub> 15 - 25;  $K_2CO_3$  20 - 40;  $D_{cath} = 0.8 - 1 \text{ amp/dm}^2$ ;  $D_{anode} = 0.4 - 0.5 \text{ amp/dm}^2$ , temperature  $18 - 25^\circ C$ , current efficiency on the cathode = 95%. In this case the microhardness of Ag coatings is 1.4 - 1.5 times higher than that produced from an electrolyte without Ni or Co admixtures. R. Bek.

Translator's note: This is the full translation of the original Russian abstract.

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